

Chapter 8. Meeting 8, Practices: The Early History of Live Electronics

8.1. Announcements

- Begin to prepare a 1 to 2 minute solo or duo improvisation with Performance C.

8.2. Review Pd Tutorial 4

- ?

8.3. Quiz

- 10 Minuets

8.4. Landmarks in Early Live Electronics

- 1950s to 1960s: John Cage, David Tudor
- 1961 to 1965: ONCE Festivals: Robert Ashley, Gordon Mumma, Pauline Oliveros, David Behrman
- 1966: Sonic Arts Union: Robert Ashley, Gordon Mumma, David Behrman, Alvin Lucier
- Late 1960s: MEV (Curran, Teitelbaum, Rzewski, Lacy, others) and AMM (Prevost, Rowe, Cardew, others)
- 1970s: League of Automatic Composers: Jim Horton, John Bischoff, Tim Perkis, David Behrman, Paul DeMarinis, others
- 1985: first Hub concerts

8.5. Reading: Gresham-Lancaster, *The Aesthetics and History of the Hub*

- Gresham-Lancaster, S. 1998. "The Aesthetics and History of the Hub: The Effects of Changing Technology on Network Computer Music." *Leonardo Music Journal* 8: pp. 39-44.
- The author describes David Tudor's *Rainforest* as collaborative live performance: explain this.

- How did the Hub's technology change? How did this alter their aesthetic? How did this affect their ability to build repertory?
- The author describes at times reveling in surprise, and at other times being grateful for system stability: is this a contradiction?
- What is a blackboard system, and how might it be used for collaborative music making?
- Describe a few approaches to making a score for the Hub.

8.6. Listening: David Tudor/Pauline Oliveros, Applebox Double

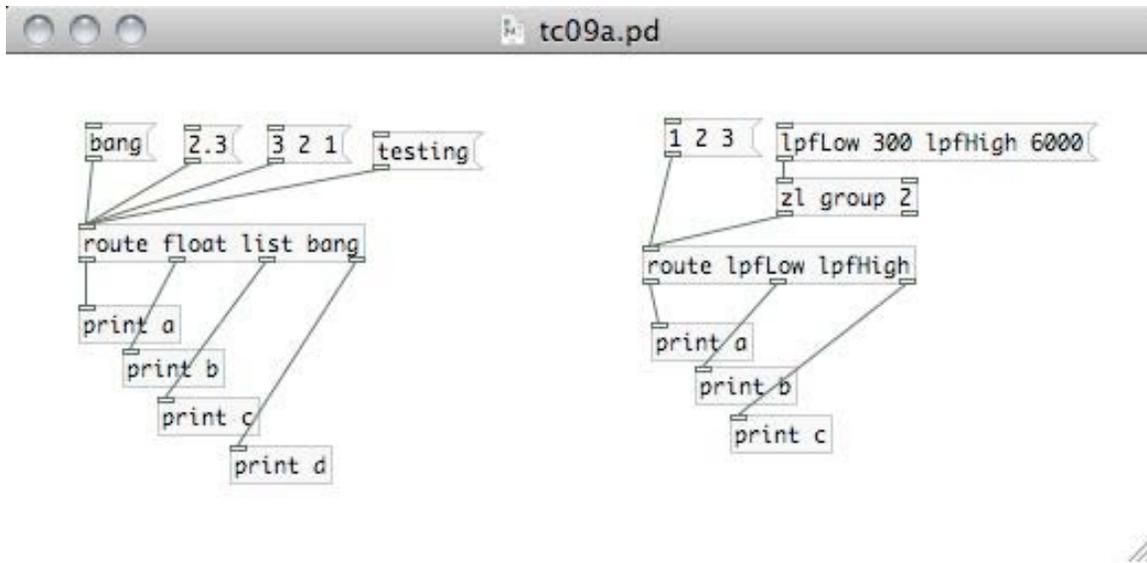
- Part of a collection: music from the ONCE festival, 1961 to 1966
- Listening: David Tudor/Pauline Oliveros, "Applebox Double," 2003

8.7. Listening: League of Automatic Composers

- Listening: League of Automatic Composers, "Oakland One," *League of Automatic Music Composers 1978-1983*

8.8. Managing Data Streams

- Can use [route] to move data to different outlets by type
- Can be data types: bang, symbol, float, or list
- Can be first symbol of a two element list
- Example



8.9. Building Patches and Abstractions

- Each small reusable and/or testable component should be abstracted into a component
- Use [inlet], [outlet], [inlet~], [outlet~] to create inlets and outlets
 - Add details as to what inlets are in inlet boxes
 - Assume that order of non-signal inlets might matter
- Save as a .pd file in a location Pd can find
- Use [loadbang] bang to provide initialization bangs on startup
- Create a test file
 - Abstraction should always work at startup with no configuration
 - Test should give an idea of what they object can do

8.10. Patches and Resources

- Pd can find any Pd or audio file that is in its list of paths
- Pd can find any file that is in the same directory as the originating path

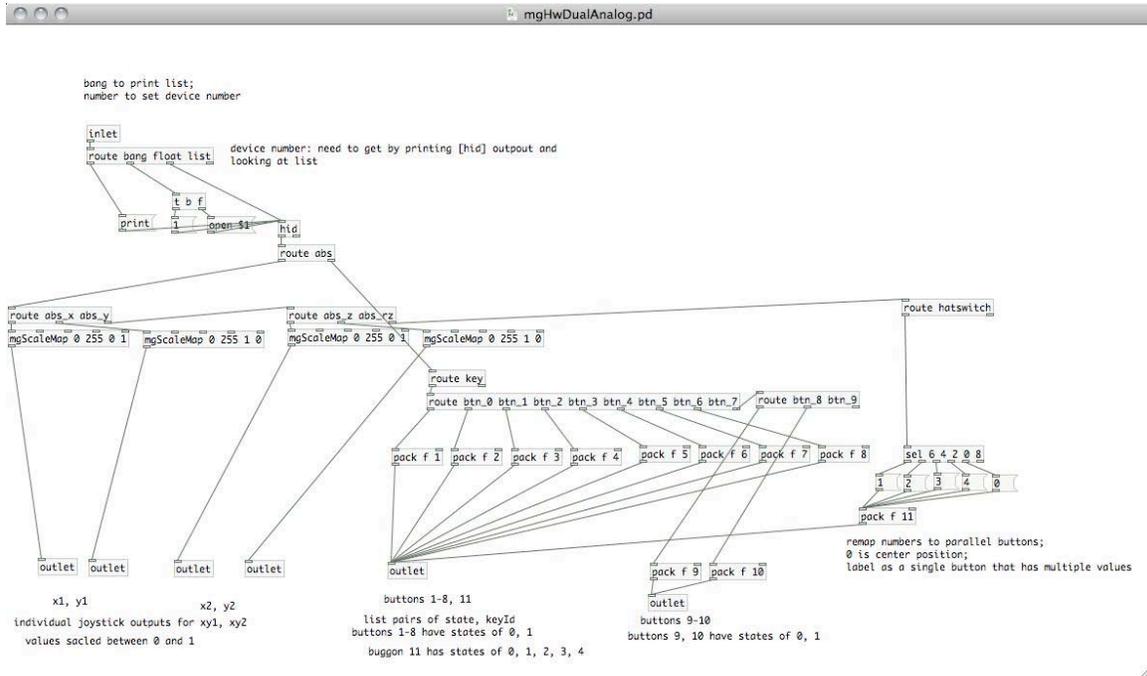
8.11. A Sample Instrument

- Hardware abstraction of Dual Analog polymorphic control

- Voice, instrument, parameters, performance (VIIP) design pattern

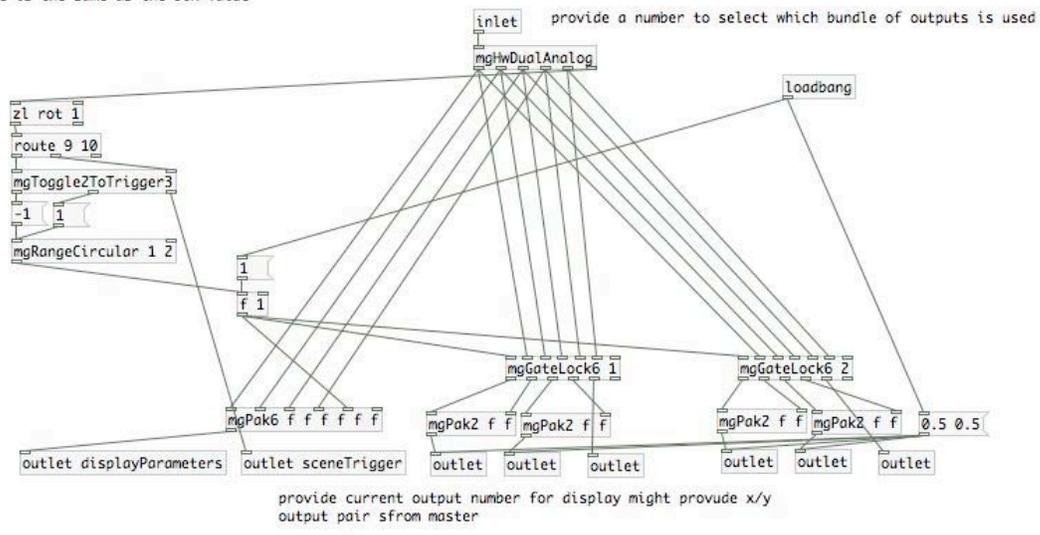
8.12. Hardware Abstraction of the Dual Analog

- [mgHwDualAnalog]



- Polymorphic control: [mgHwDualAnalogPoly2]

the number from the RangeCircular is passed to all GateLocks // these will only let values pass if the control value is the same as the box value



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